



3 1761 03595 4411

Ontario. Dept. of Health  
Pamphlet no. 1:1896

HD  
9410  
.9  
05



# PAMPHLET No. 1: 1896.

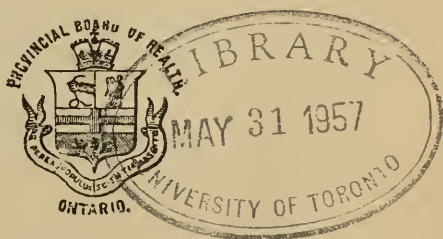
ON

## MEAT <sup>AND</sup> MILK INSPECTION

CONTAINING

The Act Providing for the Inspection of Meat and Milk Supplies of  
Cities and Towns; Plans and Estimate of Cost of a Municipal  
Abattoir, and Regulations of the Provincial  
Board of Health regarding the same; also  
Report on Inspection of Meat and Milk,  
and Regulations relating thereto.

*ISSUED BY PROVINCIAL BOARD OF HEALTH  
OF ONTARIO.*



TORONTO:

WARWICK BRO'S & RUTTER, PRINTERS, BOOKBINDERS, &C. FRONT ST. W.  
1896.



Digitized by the Internet Archive  
in 2008 with funding from  
Microsoft Corporation

# PAMPHLET No. 1: 1896.

ON

## MEAT AND MILK INSPECTION

CONTAINING

The Act Providing for the Inspection of Meat and Milk Supplies of  
Cities and Towns; Plans and Estimate of Cost of a Municipal  
Abattoir, and Regulations of the Provincial  
Board of Health regarding the same; also  
Report on Inspection of Meat and Milk,  
and Regulations relating thereto.

*ISSUED BY PROVINCIAL BOARD OF HEALTH  
OF ONTARIO.*



TORONTO:

WARWICK BROS & RUTTER, PRINTERS, &C., 68 AND 70 FRONT STREET W.  
1896.

SEEN BY  
PRESERVATION  
SERVICES

HL  
9410  
9  
05



908636

PAMPHLET No. 1.—1896.

ISSUED BY THE

# PROVINCIAL BOARD OF HEALTH OF ONTARIO.

---

In the Municipal Act of Ontario, provision has existed since Confederation for the passing of by-laws for the inspection of both foods and drinks. The more important of these provisions have been incorporated in the Public Health Act of 1884, and amendments added with regard to the inspection of slaughter-houses, milk and ice supplies, and supplying powers for the seizure of animals infected with any contagious disease named in the Animals Contagious Diseases Act (Dominion Statutes). In connection with the work of inspection of foods, a few towns only in Ontario at present attempt any systematic work, and still fewer, even, attempt to examine either milk for adulteration with water or into the sanitary condition of the cow byres which supply the public with milk. Once, or at most, twice a year, several Ontario cities have the milch cows inspected as to their general health, but no town or city yet makes any systematic inspection of animals before slaughter, or of the meat subsequently, at the several slaughter-houses of the town or city; while no properly constructed and managed municipal abattoir exists in Ontario.

A number of cities have felt strongly the dangers due to the absence of any systematic method for assuring the healthfulness of meat and of milch cows, and have asked advice of the Provincial Board of Health as to the best method of providing for inspection thereof.

Provision  
inspection  
supplied  
Public H  
Act, 1887

Existing  
of system  
inspectio  
meat and

Legislation  
urged by med-  
ical health  
officers.

The Association of Executive Health Officers of Ontario at their annual meeting in 1895, unanimously adopted the following resolutions calling for legislation in the matter of compulsory inspection.

"Dr. SHEARD then moved, seconded by Dr. CASSIDY, the following resolution :"

"That whereas it is the view of this Association that the maintenance in a wholesome state of the food supplies of this country is a matter of prime importance to the welfare of the people ;"

"That whereas it has been shown that in the matter of the meat and milk foods there does not exist in present methods adequate provision for their inspection, so as to insure their being always placed in the market in a wholesome condition ;"

"That whereas in the papers and discussions presented before this meeting, strong views have been expressed as to the necessity for bringing the existing state of affairs to the attention of the several legislative bodies directly concerned in supplying adequate machinery for the scientific examination of our food supplies ;"

"Therefore this Association does hereby instruct its Executive Council to take such steps as will bring the views of the Association before the several authorities, Federal, Provincial and Municipal, with the request that they give practical effect to such laws as now exist, and make such amendments thereto or pass such further legislation as shall serve to maintain and increase the wholesomeness of Canadian food supplies, whether for home or foreign consumption. Carried."

(Page 46, Report of Ontario M.H.O.). A number of officers of this Association urged the point that, owing to the absence of abattoirs and of inspection, the second-class animals were supplied to local markets, the better class being taken to metropolitan markets or exported. The great need of inspection of meat is seen in the fact that the packing houses of Canada are refused admission for their dressed hogs to continental countries, because they can show no certificate of systematic inspection by qualified Government officials, though these houses would gladly pay for such inspection.

Absence of  
inspection  
results in  
England in  
scheduling im-  
ported cattle,  
with an  
economic loss.

The absence of such inspection of cattle for export is causing the scheduling of Canadian cattle in the English market ; while, owing to this, a distrust has been created in the London and Liverpool cattle-markets against Canadian as compared with United States cattle, as established by abundant available evidence. When it is remembered that the total value of live stock in Ontario in 1893 was \$116,070,902, and that 107,224 cattle were exported in that year from Canada, the economic loss resulting from any distrust as to the health of Ontario cattle abroad, apart from the dangers from second-rate meat at home, is obvious.

In view of the scheduling of cattle by England, the United States Congress is at present discussing a Bill for the further inspection of all cattle for export or for inter-state trade, and for providing compensation at home whenever seizures are made on account of disease. This is to supplement the action already taken under laws establishing State Cattle Commissions in fourteen States, whereby a systematic inspection of all meat for slaughter in the cities and towns and of all herds is being made for the purpose of stamping out tuberculosis, provision in every case being made for State compensation to owners for the destruction of animals. Although in Massachusetts the value of live stock is but \$14,200,178, yet an absolute prohibition is made against the introduction into the State by any railroad corporation or by any person, of any cattle unless inspected as to freedom from tuberculosis or other disease at the port of entry.

Action of Congress to overcome the losses due to scheduling American cattle in England.

Municipal abattoirs in many large cities, notably in Europe, have existed for many years; while in France, Germany, Belgium, Holland and other countries, general laws provide for the systematic inspection of cattle, and of milch cows for public dairies. In such cities as Edinburgh, Brussels, Paris, Berlin and Vienna, where it might seem that their extent would militate against municipal abattoirs, it has been found easy and practicable to provide for the inspection of all animals before slaughter, and of carcasses, when they are brought there already killed, as in the case of foreign meat. The cost for slaughter and inspection is nominal, but is enough to compensate for the superintendence of the work by competent veterinarians.

Municipal abattoirs the rule in the great continental cities.

The consensus of opinion of all scientific authorities is that great and positive dangers exist in the use of meat and milk from animals suffering from consumption or tuberculosis; and that the two best methods of limiting these dangers are by the examination of the carcasses of slaughtered animals for tubercle and by the testing of milch cows with tuberculin. In view of the demands of municipal authorities for assistance by legislation, also regarding the views of all scientific experts, and of the numerous Medical Health officers of Ontario, and further recognizing the practice of all countries most

Consensus of opinion of scientists that dangers to health result from tuberculous meat and milk.

advanced in public health matters, the Provincial Board of Health of Ontario having instructed its committee to endeavor to obtain legislation, the following Bill has been passed by the Legislature of Ontario, entitled, "An Act for the Inspection of Meat and Milk Supplies in Cities and Towns," being chap. 63, 59 Vict., 1896 :

AN ACT TO PROVIDE FOR THE INSPECTION OF MEAT AND MILK  
SUPPLIES OF CITIES AND TOWNS.

HER MAJESTY, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows :—

Act of 1896  
for inspection  
of meat and  
milk, cap. 63.

1.—(1) The municipal council of every city or town may by by-law provide for the establishment of a public slaughter-house or abattoir within the limits of the municipality, or in such adjoining municipality as shall by by-law sanction its erection therein, and for the construction of cattle-yards and pens for the proper keeping therein of animals intended for slaughter, and for charging fees to defray the costs incurred by the local board of health in carrying out the provisions of this Act.

(2) Every such slaughter-house or abattoir, and cattle-yard and pen, shall be constructed, equipped and regulated in conformity with any regulations in that behalf, from time to time adopted by the Provincial Board of Health, and approved by the Lieutenant-Governor in Council.

2. The local board of health of every city or town in which such slaughter-house or abattoir, cattle-yards or pens may be established shall have the control and supervision of the same, and shall be responsible for the due carrying out of the regulations of the Provincial Board of Health made in connection therewith; and the costs of the supervision and inspection carried out under this Act, and of any regulations made under it with regard to slaughter-houses or abattoirs, or cattle-yards or pens, or in carrying out any other provisions of this Act, shall be paid from time to time by the treasurer of the city or town out of the fees charged for such slaughter or inspection, on the order of the local board of health.

(2) The powers conferred upon local boards of health and their officers by section 99 of *The Public Health Act* shall apply in the supervision and inspection carried on under this Act.

3. The local board of health of every city and town where such cattle-yards and pens are established, may employ one or more competent persons, approved of by the Medical Health Officer, to inspect at such slaughter-house or abattoir, or at such cattle-yards or pens, all animals, carcasses and meat brought into the municipality and intended for human food.

4.—(1) The local board of health of every city and town may, in addition to periodical examination as to purity of public milk supplies, and as to the sanitary condition of the byres, or places where cows for

public milk supplies are kept, inspect every milch cow kept therein, as to its general health. In addition to such general inspection the local board of health may provide for the testing with tuberculin by a registered veterinary surgeon of every cow kept in such byres or places for the diagnosis of tuberculosis.

(2) Every cow may be tested and thereafter dealt with according to the methods set forth in the regulations adopted by the Provincial Board of Health, and approved of by the Lieutenant-Governor in Council.

5. Any meat-packing establishment heretofore or hereafter erected within the limits of any municipality in Ontario shall be subject to inspection in a manner similar to that of the municipal slaughter house or abattoir.

Section 99 R. S. O., cap. 205, and all sub-sections to 1896 is as follows :

(1) Any medical health officer or sanitary inspector may, at all reasonable times, inspect or examine any animal, carcase, meat, poultry, game, flesh, fish, fruit, vegetables, grain, bread, flour or milk exposed for sale, or deposited in any place for the purpose of sale, or for preparation for sale, and intended for food for man; the proof that the same was not exposed or deposited for any such purpose, or was not intended for food for man, resting with the party charged; and if any such animal, carcase, meat, poultry, game, flesh, fish, fruit, vegetables, grain, bread, flour or milk, appears to such medical health officer or inspector to be diseased, or unsound, or unwholesome, or unfit for food for man, he may seize and carry away the same, or cause it to be seized and carried away, in order that he may cause it to be destroyed or so disposed of as to prevent it from being exposed for sale or used for food for man.

Laws relating to inspection of animal and food in Public Health Act and its amendments.

(2) The person to whom the same belongs, or did belong at the time of exposure for sale, or in whose possession or on whose premises the same was found, shall be liable to a penalty not exceeding \$100 for every animal, carcase, or fish, or piece of meat, flesh or fish, or any poultry or game, or for the parcel of fruit, vegetables, grain, bread or flour, or for the milk so condemned; or, at the discretion of the convicting justices or magistrate, without the infliction of a fine, to imprisonment for a term of not more than three months.

(3) Whenever a medical health officer from his own knowledge, or from information received from a veterinary surgeon or other qualified person, has reason to believe that any animal, or the meat or milk of any animal is affected with any contagious or infectious disease named in section 2 of *The Animal Contagious Diseases Act*, chapter 69 of the Revised Statutes of Canada, 1886, or with the disease known as wens, clyers, actinomycosis or osteosarcoma, he may take action as provided under sub-section 1 of this section.\*

\*The expression "infectious or contagious disease," includes, in addition to other diseases generally so designated, *glanders, farcy, mange, pleuro-pneumonia, foot and mouth disease, anthrax, rinderpest, tuberculosis, splenic fever, scab, hog cholera, hydrophobia, variola ovina* and actinomycosis.

*Regulations adopted by the Provincial Board of Health, June 9th, 1896, under Cap. 63, 59 Vict., 1896, to provide for the inspection of meat and milk supplies of cities and towns, and approved of by Order in Council dated December 23rd, 1896.*

Regulations  
for construc-  
tion and  
equipment of  
abattoirs.

1. Every municipal slaughter-house or abattoir, together with the cattle yards and pens attached thereto, shall be of the character and equipment set forth in Pamphlet No. 1 of 1896, issued by the Provincial Board of Health, or such as shall be approved by the Board and shall have :

(a) Yards and pens with shelter for cattle, and appliances and conveniences for feeding and watering the same.

(b) Killing floor.

(c) Refrigerator or store-room with separate hanging-room and ice chamber.

(d) Proper and adequate appliances for killing, cleaning and hanging animals, for heating water, for removal of blood and offal and for receiving the organs and fat.

(4) Any officer of the Provincial Board of Health may similarly, at all reasonable times, carry out any of the provisions contained in this section.

(5) The owner or other person having charge of any animal, or meat or milk of any animal affected with the said diseases, who knowing the nature of the disease, shall hold the animal or its meat or milk for human food shall be liable, upon conviction before a police magistrate or two justices of the peace, to a fine not exceeding \$50 or less than \$5 and costs; and the burden of proof that the animal, meat or milk was not intended for human food or to be sold for human food, shall rest with the person charged.

(6) Any person who gives such information to a health officer or shall make such complaint to a justice of the peace as shall lead to the conviction of any person for a breach of the provisions of this section shall be entitled to receive one-half of the penalty imposed upon the person so convicted, and the other half of the penalty shall be paid to the municipality in which the offence was committed.

(7) Upon any prosecution under sub-section 5 of this section, it shall be competent for any medical health officer to make or cause to be made or request the Provincial Board of Health to make, at the cost of the municipality, such scientific examination of the animal, meat or milk

(e) Pure water to be obtained from town or city waterworks, or from tanks attached to a windmill or other mechanical appliance, assuring an adequate supply for flushing and general cleansing purposes.

(f) Sufficient and proper appliances for heating and ventilation.

(g) Properly constructed and adequate sewerage and means for disposal of sewage.

(h) Adequate arrangements for disposing of refuse and offal, so as not to create a nuisance.

2. The special inspection carried on by local boards of health as provided for by section 4, chap. 63, 59 Vict., shall consist of :

Regulation for inspection of cows in public dairies.

(a) A personal inspection by a veterinarian of every milch cow, kept for supplying public milk, for evidence of disease.

(b) An injection of tuberculin, supplied through the local board of health or medical health officer, and obtained from a source approved of by the Provincial Board of Health, and applied in the following manner: Having had the forenoon and afternoon temperature taken to obtain an idea of the existing condition of the animal, a ten per cent. solution of normal tuberculin is to be injected to the amount of from one to four cubic centimetres according to age of

Method of applying the tuberculin test.

suspected of being diseased as may enable the court to determine whether or not such diseases exists, and the Minister of Agriculture may instruct the secretary of the board or other person acting under the board to make such investigation, and the expense of such investigation shall be supplied out of the moneys set apart by the Legislative Assembly for the investigation of contagious diseases. A fee, which shall not in any case exceed \$10, shall be payable for the examination of any tissue, meat or milk under the provisions of this subsection.

(8) Whenever any medical health officer, sanitary inspector or other health officer of the board of health, knows or has reason to believe that blood, offal or the meat of any dead animal which has not been previously boiled or steamed when fresh or before becoming putrid or decomposed, or which, although steamed or boiled, is putrid or decomposed, has been or is being fed to hogs, he may summon the owner, the person in charge, or any person found feeding the same, before a justice of the peace for violation of the provisions of this section, and whenever such blood, offal or decomposed flesh is found on any premises, the burden of proof that it was not intended to be so fed shall rest with the person charged. Should the charge be proven, the health officer making the charge may seize and carry away, or cause to be seized and carried away, the animals,

animal, and this injection should be made in the evening. The temperature must thereafter be taken regularly every three hours for a period of from twelve to fifteen hours, and carefully recorded. Any notable rise of temperature after injection indicates the existence of tuberculosis in some one or more organs.

Method of  
registering  
inspected  
cows.

(c) Each animal tested and found healthy, shall be described and numbered by the veterinary inspector in a book supplied and prepared by the local board of health, which book shall be its property. A metal tag shall be affixed to the ear of the cow, with a number corresponding to that entered in the book describing said cow.

(d) Any animal in any dairy herd found to give the tuberculin re-action or found otherwise seriously diseased, shall at once be removed from the herd, and shall be dealt with by the veterinarian of the local board after the methods hereinafter set forth.

3. The cows found tuberculized or to re-act with tuberculin, are to be dealt with in some one or more of the following ways:—

Methods of  
dealing with  
cows re-acting  
under the  
tuberculin  
test.

(a) If wasting, and the clinical symptoms of lung disease are present, the cow shall be destroyed and the carcass so disposed of as to prevent it from being exposed for sale or used for food for man.

(b) If showing the re-action of tuberculin, while in fair condition, such cows shall be placed in stables or pens separated by an open air space from the healthy herd; and must not have access to the same yard, or the same food or water as the healthy animals. Thereafter the milk of such cows may be allowed to stop or dry up, and the animals fattened as speedily as possible for slaughter; or the cows may be milked and the milk thereafter boiled for half an hour, and then fed to pigs or calves.

(c) A cow in calf may be kept, but the calf at birth must be at once removed from the cow, and if fed with milk from a tuberculized cow such milk must be sterilized. Such cow should, however, be fattened and killed while the disease is still slight and localized.

---

whether dead or alive, to which the aforesaid blood, offal or unboiled or putrid meat has been fed, in order that the said animals may be destroyed or so disposed of as to prevent them from being exposed for sale or use for food for man.

*Note.*—Re inspection under the powers given health officers under Section 99 of the Public Health Act :

(a) *An inspection prior to slaughter, of all animals intended for human food should be made by a veterinary surgeon or other competent person approved of by the Medical Health Officer, and the facts of such examination and notes of any deviations from health entered by him in a book to be supplied by and to be the property of the Local Board of Health.*

Rules for guidance of Health Officers in inspecting animals and disposal of diseased meat.

(b) *An inspection at the time of slaughter, when the lungs, bronchial glands, liver, intestines and other tissues should be carefully examined by the inspector for evidence of disease.*

(c) *All knives or other cutting appliances, which may have touched any diseased tissues, should be at once boiled in water or placed in a steam sterilizer for at least ten minutes and properly disinfected before being again used.*

(d) *The meat of emaciated or wasted animals, or meat otherwise described as diseased or unwholesome, as provided under section 99, chap. 205 R.S.O., 1887, and amendments thereto, must not be used for human food but must be destroyed, or so disposed of as to prevent it from being exposed for sale or used for food for man.*

(e) *The flesh of tuberculized animals is to be declared diseased and unwholesome; (1) If there exist tubercular nodules in the muscles; (2) If the tubercular disease be generalized, that is, if tubercular nodules or abscesses have invaded the greater part of a viscus or organ, or are present in several organs; (3) Or show themselves on the walls of the chest or of the abdominal cavity.*

The Act of 1896, as will be seen by reference to section one, subsection two, while making it optional for cities and towns to construct municipal abattoirs, requires that any city or town establishing an abattoir, shall construct and equip it according to the regulations adopted by the Provincial Board of Health and sanctioned by the Lieutenant Governor in Council, and have the inspection of animals and meat carried out as provided in sec. 99 of the Public Health Act already quoted. With a view to advancing this most desirable work of controlling the inspection of meat and milk, it has been thought proper to not only publish the regulations adopted by the Board, but also to add thereto directions which it is hoped will prove of use to those municipalities which hitherto have had little or no experience in this work.

The plans for a small abattoir inserted in this pamphlet as a part of regulations adopted by the Provincial Board of Health, have been based on the calculated number of animals required as food by

Model abattoir for town of 5,000 pop.

a town population of 5,000. Larger towns and cities will probably not require to much exceed the extent and cost of such abattoir until a population of from 12,000 to 15,000 is recorded.

Provision has been made for pens for three classes of animals, while appliances for the slaughter of these will be contained in the same building.

The abattoir building shown on the plan, covers an area of 1,000 square feet, of which 600 are occupied by the killing and cleaning room.

The remainder of the space is taken up by the refrigerator and storerooms.

The shape and extent of the ice-chamber may be altered and extended as may be found necessary. The spaces in the walls of the ice-chamber can be either left as tight air-spaces or packed with dry sawdust.

The movement of air from the ice-chamber toward the cooling room can be regulated by ventilators to any degree found compatible with freshness of air and economy of ice.

Construction  
of floor.

The ground on which the building is situated should be distant from dwellings, and selected for its dryness ; but the sub-soil water, where necessary, must be carried away by a three-inch field tile laid around the outside of the foundation, and lower than the floor. The floor must be laid either with vitrified brick, or in Portland cement, with roughened surface, preferably on a foundation of concrete in both cases. Sharp sand, as foundation, well rammed will, however, be less expensive, and if well laid, may be found satisfactory.

Construction  
of drainage.

Provision has been made for the drainage of the blood and washings from the killing-floor to a sump at one side of the floor. It is necessary that the arrangement of the drainage and of the sump be most carefully attended to. The sump is to be made of brick, carefully laid in cement, with joints, surface and bottom made smooth.

The brass screw seen on the plan fits the sewer pipe, which is made of heavy iron pipe (four inches in diameter), with trap, and extended beyond the building, and there connected with a well-laid

tile drain to sewer or sub-surface field tiles.\* The sewer cap and cleaning screw are shown in the plan, rather above the bottom of the sump. It is desirable, however, to fill up to the level of the screw with cement, so that the bottom of the sump may be washed perfectly clean. The cover of the sewer must be kept screwed down during the killing, and the blood and other solid refuse must thereafter be removed from the sump into a truck or wheelbarrow and disposed of along with the offal. The floor and sump will then be swept and washed down with water from the waterworks, or from a tank into the sewer.

The walls of the building and partitions are to be constructed of brick finished smooth in cement, or of pressed or vitrified brick, to the height of six feet from floor, whatever material be used. Thereafter the wall may be carried up in ordinary brick to a height of not less than sixteen feet.

Construction of walls and ceiling.

The building should have a ceiling preferably of pine sheeting, which can be washed with hose. The ventilation of the killing-room may be carried out by ventilators in the ceiling leading to the roof space, which is supplied with louvred openings in either gable end.

The lighting is represented on plan by spaces for the windows.

The refrigerator room should have inside shutters.

The appliances for use within the building, are to consist of :

- (1) A large stove, either with cast iron pot or other form of boiler, both for supplying heat and also hot water for scalding hogs and washing purposes ;
- (2) A hog-scalder as indicated in the plan ;
- (3) A table as seen on plan for cleaning the viscera or organs, and a vat for receiving the fat and other parts ;
- (4) A truck or wheelbarrow, preferably of heavy sheet-iron, for removing offal to the waggon ;
- (5) An overhead inclined runway or trolley with travellers, pulleys and hooks for hanging carcasses thereon ;

Equipment of abattoir.

---

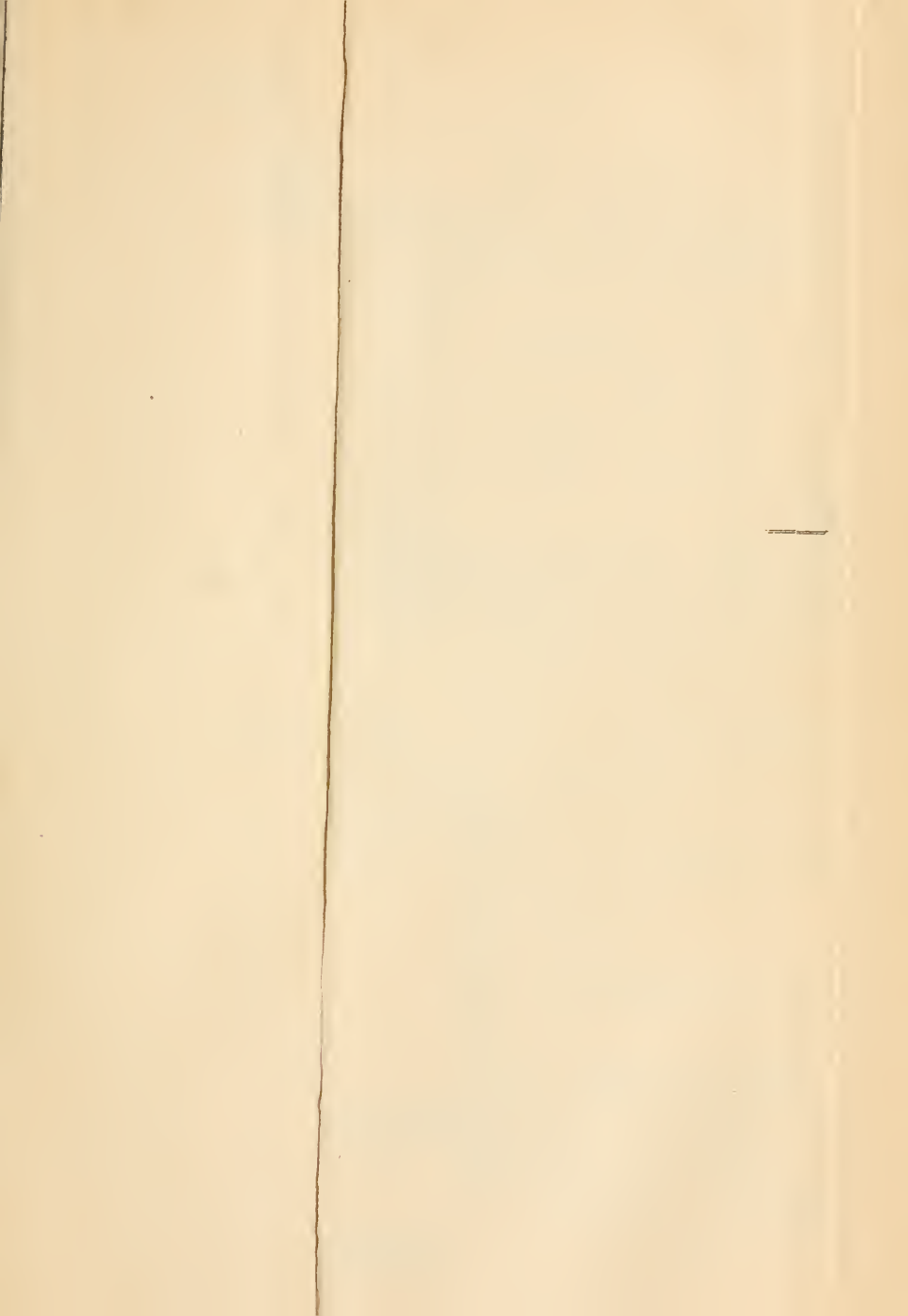
\*For particulars of construction, see "Disposal of House Wastes," see pamphlet No. 1, 1893, issued by the Provincial Board of Health.

(6) A pen at the point where the animal passes to slaughter floor is to be provided with a door on pulleys which, when the animal has been struck, is raised by lever and the animal drawn out on to the killing floor ; also with a platform on which the slaughterer stands.

Arrangement  
and construction  
of pens.

The plans indicate the extent and method of arrangement of the yards or pens, which however can be extended to suit the local conditions of the site.

These yards or pens must be supplied with troughs and water for the use of the animals prior to slaughter, as also for washing down the floors. The pens may be either paved, or floored with good plank, so laid as to be water tight and washed down readily to the gutter.





ESTIMATE OF THE COST OF AN ABATTOIR AND PENS (50x20 FEET),  
CALCULATED FOR THE POPULATION OF 5,000, ACCORDING TO  
TORONTO PRICES :

|                                                         |          |                   |
|---------------------------------------------------------|----------|-------------------|
| 39½ M. brickwork, at \$12.....                          | \$474 00 |                   |
| 3        "        \$21.....                             | 63 00    |                   |
|                                                         |          | \$537 00          |
| *111 square yds. vitrified paving, at \$12.....         |          | 166 50            |
| Drainage, say .....                                     |          | 50 00             |
| *16 squares roofing, complete, at \$14½.....            |          | 232 00            |
| 3 trusses .....                                         | 45 00    |                   |
| Doors, windows, complete .....                          | 70 00    |                   |
| Killing pen .....                                       | 15 00    |                   |
| Ceiling .....                                           | 30 00    |                   |
| Ice room .....                                          | 50 00    |                   |
| Ventilators on roof .....                               | 24 00    |                   |
|                                                         |          | 234 00            |
| 90 feet fencing, cattle, hog, and sheep pens.....       | 22 50    |                   |
| 850 feet of flooring for cattle yard.....               | 38 00    |                   |
| Sheds, complete . .....                                 | 50 00    |                   |
|                                                         |          | 110 50            |
| 140 feet runway, \$56 ; 8 switches, \$32.....           | 88 00    |                   |
| 6 beef travellers, \$8 ; 2 hog travellers, \$1.50 ..... | 9 50     |                   |
|                                                         |          | 97 50             |
| 1 hog scalding and stove.....                           |          | 100 00            |
| 1 windlass, complete.....                               |          | 20 00             |
| Wooden vats, etc .....                                  |          | 25 90             |
|                                                         |          |                   |
|                                                         |          | <u>\$1,572 50</u> |

\* Cement floors are laid at from 12 to 15 cents per square foot.

*Contagious Diseases in Cattle and Cattle Inspection.\**

In the evolution of public health work in America, as on the continent of Europe, legislation naturally took cognizance of those diseases, which, appearing as pestilences, not only resulted in the destruction of thousands of human lives, but also created most serious losses to trade and commerce, paralysing often the whole business of such cities and districts as might become subject to their ravages. Associated with such legislation were investigations into the causes of these diseases, and in the classical reports of the Local Government Board of England we find fully detailed the results of such enquiries regarding the prevalence of cholera and typhus, the types of epidemic diseases. Following closely upon the work which resulted in the development of public water supplies and sewerage systems for cities, and in the opening up of wider streets and the erection of model dwellings in the place of the pestiferous closes and old buildings, began enquiries by the public health authorities into the causes of diseases, such as rinderpest and foot-and-mouth disease in England, and of anthrax, or charbon, in the herds of France. Indeed, it was in the latter field, both as regards isolation and preventive experimentation, that the most striking results of modern scientific investigation have been obtained. Following the lines of investigation begun by Chauveau and Davaine, the immortal Pasteur, with that insight which has made his work the type of all inductive science, pushed his inquiries into fields of research as yet untrodden, and gave to the world those methods which have only needed the rays from his lighted torch to enable his followers to peer into the hidden recesses of Nature and thereby reveal to a sceptical world the wonders of her *mysteria*.

Illustrating this by the one example of anthrax, we have a disease which for over two centuries has appeared as an epidemic both in men and animals in Europe, which in 1617 A.D., is said to have caused 60,000 deaths in men in the one city of Naples, and which so late as 1864 destroyed in one province of Russia 64,000 animals and 525 men, and yet which within a few years thereafter, through Pasteur's

---

\*Reproduced from: Annual Report of the Provincial Board of Health for 1895.

Beginning of  
Government  
investigation  
of animal  
diseases in  
England.

Mortality  
caused by  
animal  
plagues in  
Europe.

studies, has almost disappeared from France, where it had been for years the cause of the loss of millions of francs annually.

As in the case where the epidemics of cholera, typhus and of smallpox were soon followed by the investigation of diseases characterized as endemics such as typhoid and diphtheria, rather than as *maladies fulminantes*, we find Dr. John Simon, in the Public Health Report, England, of 1862, stating, "Allegations have, during the last few years, been abundantly made, and have with the progress of time become more and more definite, that the flesh of animals slaughtered while in a state of disease, and likewise the milk of diseased animals are extensively sold for human consumption in the United Kingdom. And the substance of these allegations has been submitted to the Lords of the Council. In 1862 their Lordships ordered an enquiry to be made in this matter, and under their directions I requested Mr. John Gamgee, Principal and Professor in the Edinburgh New Veterinary College, to report on it. For your Lordship's purpose it was likewise desirable that enquiry should be made as to the circumstances under which the more important diseases of stock prevail in the United Kingdom, and particularly into the influence of importation and of home trade in spreading the infection of such diseases."

First investigation of animal diseases in England by the Local Government Medical Officers of Health.

In this inquiry Mr. Gamgee was instructed to visit infected centres in the United Kingdom and also those parts of the continent whence came most of the imports.

Dr. Simon states that the substance of Mr. Gamgee's report then published was, "that disease prevails very extensively in the United Kingdom among horned cattle, sheep and swine; that the diseased state of an animal not only does not commonly lead the owner to withhold it from being slaughtered for consumption as human food, but on the contrary in large classes of cases (especially where the disease is of an acute kind) leads him to take immediate measures with a view to this application of the diseased animal, and that consequently a very large proportion (Mr. Gamgee believes as much as a fifth part) of the common meat of the country—beef, veal, mutton, lamb and pork—comes from animals which are considerably diseased."

Reported extensive prevalence of animal diseases by Prof. Gamgee in 1862.

Mr. Gamgee classified the diseases as (1) contagious fevers ; (2) anthracic diseases ; (3) parasitic diseases. In the first were pleuro-pneumonia and foot and mouth disease, and in the second anthrax and black quarter, and in the third measles and trichina in the pig and liver-fluke in the sheep.

Diseased  
animals large-  
ly sold for  
consumption  
as food.

Mr. Gamgee is further quoted as stating, "that the flesh of all such diseased animals is being very largely sold for consumption as food, that carcasses too obviously ill-conditioned for exposure in the butcher's shop are abundantly sent to the sausage makers, or sometimes pickled and dried, . . . and that the principal alternative on a large scale to the above described human consumption of diseased carcasses is that in connection with such slaughtering establishments, swine, destined themselves to become presently human food, are habitually fed on the offal and scavenage of the shambles, and devour often raw, and with other abominable filth, such diseased organs as are below the sausage maker's standard of usefulness."

As to the effects of the use of such deceased meats as foods, some remarkable instances of fatal results are given by Dr. Simon, and a notable one quoted by Mr. Gamgee, where the meat taken from a sick animal treated with tartar emetic caused sickness in 321 persons who ate it and death in one case.

Effects of  
diseased meat  
on health.

Dr. Simon further, with his remarkable insight, speaks of "the question of meats being rendered unwholesome by decomposition, and the question of meats being rendered unwholesome by disease." "Among the cases which I see adduced as illustrations of mischief from diseased meat are some which, for aught that appears, may only illustrate the well known fact that, even in presumably healthy meat, poisonous properties different from those of common putridity are sometimes developed by decomposition."

Mr. Gamgee is finally quoted as stating "that a very large proportion of the disease which now habitually prevails amongst live stock in the United Kingdom, and which he estimates as proving fatal to stock to the immense pecuniary amount of more than six millions sterling annually, might by proper measures be prevented."

These extended extracts have been given as being of special interest in illustrating what seems to be the first attempt at an

accurate scientific investigation in England of the diseases of cattle, and whether viewed from the sanitary or economic standpoint, they present a picture than which nothing would seem more horrible or gloomy.

Amongst the most remarkable epidemics amongst cattle in England was that of the Russian cattle plague or rinderpest, or *typhus boum contagiosus*, which was introduced into England by Russian cattle in 1864, and within a year the total number of cattle on farms in Britain where the disease had appeared was 159,710, while the total attacked was 73,549, of which 41,491 died.

First outbreak  
of rinderpest  
in England in  
1864.

The activity of the Cattle Commission stamped out this disease, only after frightful losses, by segregation and by destroying all animals which had been exposed. It re-appeared to some extent in 1872 ; but with the more chronic diseases of pleuro-pneumonia, endemic in most European countries at this time, it was not until 1888 that the pleuro-pneumonia Slaughter Order of the Privy Council was passed, requiring all cattle being, or having been in the same field or other place, or otherwise in contact with the diseased, to be slaughtered within ten days from the exposure.

It is very remarkable that in the Public Health Reports of Dr. Simon, of the Local Government Board, nothing is said concerning the two diseases of cattle, which to-day, whether in England or in America, are attracting in the greatest degree the interest of both public health authorities and veterinarians, viz., tuberculosis and actinomycosis. As amongst the diseases of mankind, it seems probable that they have been practically disregarded, in the presence of the diseases which like rinderpest in cattle or cholera in man, appear in epidemic explosions. Hence to-day, as all health authorities have only begun to have their attention seriously drawn to prophylaxis and measures for restricting the spread of contagion in human tuberculosis, so have they only begun to realize that bovine tuberculosis and actinomycosis, from their very chronicity possess dangers more widespread and permanent than many of the more acute diseases.

Tuberculosis  
and actinomy-  
cosis not  
considered in  
early reports  
on animal  
diseases as  
infectious.

The history of veterinary medicine in the United States is of much more recent date. We have almost nothing printed concerning

animal diseases, until after the civil war. Massachusetts has a history of existing pleuro-pneumonia in 1859-65; but much apathy and indifference resulted regarding it, and owing to ignorance the merest spasmodic attempts were made to deal with it. In 1863, however, a commission of the Legislature was appointed with powers to deal with it, but was largely inoperative, as even some of its members doubted the infectious character of the disease; but the disease continuing to spread, the slaughtering order was enforced in 1866, and 1,164 cattle were killed by the commission, and others by the municipal authorities. The disease in this outbreak had been introduced in cattle from Holland. In common with other States, the disease re-appeared in 1882 in cattle imported from England, and its reported presence in several States resulted in the slaughtering order of the Department of Agriculture of Great Britain, at the port of entry, which has continued ever since.

In 1879, a cattle commission was appointed to deal with the disease in New York State; while in New Jersey in 1881, cattle diseases were placed under the charge of the State Board of Health. Then, as in Europe, this type of progressive contagious disease, had been shown to spread only with the movement of cattle in transit, and hence until the importation of thoroughbred cattle from Europe for breeding purposes began with the rapid settlement of the western prairies, and the movement eastward of cattle to the eastern markets, little was heard of cattle diseases in the United States.

The same may be said regarding the diseases of swine. The export trade in American bacon had become well established, when in 1879, the continental countries, which use largely hog products, became frightened at the reported presence of *trichina spiralis* in American bacon, and Italy first, and then afterward Hungary, Germany and France had, by 1881, prohibited the importation of American bacon. While the excitement spread to England, yet no order of exclusion was passed.

The west had already become a producer and exporter of hog products. In 1865, the Union stock yards of Chicago were first established, and by 1883, it was estimated that there were 11,179,000

Beginning of  
investigations  
of animal  
diseases in  
United States.

Prohibition in  
1879 of  
American  
bacon in Italy  
and Germany  
owing to  
prevalence of  
*trichina*.

cattle in the States and Territories west of the Mississippi, with an almost incalculable number of hogs. The exclusion of these hog products from the European market in 1879-1880, and the Slaughter Order in 1882 for cattle entering the ports of Great Britain, proved almost fatal to the export trade of the United States in animal products ; but it illustrates how utterly inadequate any attempt at State inspection and control of the health of animals had proved.

Scheduling  
order in Great  
Britain  
against United  
States cattle  
in 1882.

Such then was the situation up to 1881, when the Federal Government began its work. It established in that year quarantines at Baltimore, New York, Boston, Portland and New Orleans ; and while an order was made at the same time for a ninety day quarantine against Canadian neat cattle, it was rescinded shortly afterwards, since the Canadian quarantine for such cattle from Europe was found to be similarly ninety days. In the same year the United States Federal Government appointed a committee to study the several phases of the pork industry ; but up to 1884 had not succeeded in having any of the restrictive measures *re* foreign importations rescinded. It is somewhat curious, as it would seem to have its parallel in some recent Canadian reports of cattle inspection, that Commissioner Scanlan, of the Washington Bureau of Statistics, in 1884, reported that after most careful investigation, he could find no trichina and no hog-cholera in American hogs, and that packing establishments used only the most healthy animals for packing.

This state of affairs became intolerable, and the first step towards permanent work, was taken when Secretary Folger, of the Department of Agriculture, Washington, established the Bureau of Industries by an Act of Congress, dated May 29th, 1884, and issued an order August 10th, 1884 requiring all persons having Jersey cattle in the United States, not to ship cattle in the meantime under a penalty of \$100 to \$5,000 for violation of the order. Since that period the progress of the work of the Bureau and the extension of the co-operation of its officers with State authorities has become most noteworthy. The principle adopted early was freedom of State action ; but when state authority was lax, the Bureau would carry on investigations and issue slaughtering orders in cases of contagious

Establishment  
in 1884 of the  
Bureau of  
Animal  
Industries at  
Washington.

disease and give the compensation provided for under the State laws. Realizing that the meat industry ranks third in importance in the export trade of the United States, it was most natural that when, fully realized, the work of protecting and fostering it should be encouraged in every way possible. In view of the exclusion and its rigid maintenance on the continent of Europe against the hog products of the United States, the exports of which had realized in 1881, \$104,660,000 to all countries, Congress passed an Act providing in Regulations, dated March, 3rd, 1891, for a microscopic examination of the tissues of hogs at the time of slaughter, in order that certificates that the same were free from *trichina spiralis* might be issued; and also for an inspection of all hogs slaughtered for export or for interstate trade. This order supplemented one made on October 30th, 1890, for the systematic inspection and marking of all cattle and sheep intended for export.

Regulations of Bureau for microscopic examination for *trichina* of hog products for exports began in 1890.

First Official investigations into animal diseases in Canada in 1871 under an Act passed in 1869.

Turning to a review of the diseases of cattle in Canada it will be found that the Report of the Department of Agriculture established at the time of Confederation, practically makes no mention of agricultural matters, while dealing extensively with matters of immigration and quarantine. Reference is made, in the report of 1871, to an investigation ordered by the Lieutenant-Governor of Ontario, and carried out by Andrew Smith, V.S., of Toronto, and Dr. Nicoll, into the reported presence of an "epizooty" amongst stock in that Province. The result of the enquiry states that the disease existing was of a mild character, and was nothing more than that caused by a species of fly prevalent that summer. The "epizooty" existed in Illinois and it was supposed that the disease had been imported. The report of 1869 refers to an Act passed by the Parliament of Canada for restricting contagious diseases in cattle, while the report of 1887 makes mention of the fears of the introduction of an epizootic which had been then prevalent in Britain and on the Continent, causing annual losses of millions of pounds. This refers to pleuro-pneumonia already made mention of.

The cattle quarantine seems to have been established about 1875,

since the report of 1876 refers to the fears regarding the importation of the epizootic then existing in England and on the Continent. The report of 1884 makes mention of the outbreaks of cases of foot and mouth disease on two vessels importing cattle for breeding and refers to the limiting of the disease to the animals of the two vessels, although 800 cattle were in the Quebec quarantine at one time, and fifty persons were engaged amongst them. It is further mentioned in the report of 1884 that the importation of "neat" cattle into Canada was greatly lessened that year, owing to the fear of pleuropneumonia then existing in England. The report of 1883 states that the export cattle trade has ceased to be an experiment, while that of 1884, by Mr. McEachren, V.S., Chief Inspector, makes special mention of the good trade to be seen in *stockers*, i.e. cattle to finish for market on the English pastures. The report of 1884, and several other years, refers to a localized epidemic of scab in sheep in the Laprairie district near Montreal, and to the Pictou cattle disease, which in 1893 was fully reported upon by Prof. Adami, of McGill University. Reference appears in the 1883 report to a ship with "Texas Fever" from Canada, being seized in the Mersey, but is afterwards released on protest of Sir Charles Tupper.

Cattle quarantine established in 1875 in Canada for imported cattle.

Pleuro-pneumonia in England in 1884.

We thus see from these reports, that no reference had been made to either of the diseases, tuberculosis or actinomycosis, illustrating as do the histories of cattle diseases, both in England and in the United States, the fact that only the more rapidly spreading epidemic diseases had been investigated or dealt with. To the credit of Canada, it may, however, be asserted that the the quarantine for imported cattle was on a systematic footing before the United States took action, and that the latter country took up the work of cattle inspection by federal legislation, only after the export cattle trade made the work a necessity in the interests of commerce. Owing to the relatively higher status of Canadian stock through the importation of thoroughbred animals for breeding purposes, to their inspection on entry, and to the cattle being better cared for, together with a healthier climate, we see that Canadian stock, isolated on small farms, and not running free in large herds as on the western plains,

have hitherto enjoyed a reputation for healthiness, which has allowed the expansion of our cattle trade to go on, unimpeded by vexatious restrictions at the ports of those countries receiving most largely of our exports. In the report of 1883, the absolute immunity from disease of Canadian cattle is remarked upon as one of the main factors in the prosperity of the trade.

As already seen in the progress of veterinary science in Britain and on the Continent, it was natural that as in medicine, attention should begin to be directed within the last ten years to those endemic diseases, of a more chronic character, characterized chiefly by malnutrition and wasting, and which with the progress of biological science came to be suspected, after the discovery of the bacillus of tuberculosis by Koch, and its capacity for transmission by inoculation to animals, as being probably of zymotic origin and therefore communicable. Glanders in horses had been long suspected as being communicable, and indeed, a special Act had been passed by the Ontario Legislature in 1884, enabling local authorities and magistrates, to deal with it, and requiring all veterinarians to notify a magistrate of any cases discovered by them. The Animals' Contagious Disease Act of Canada, passed in 1885, named the following diseases as being contagious or infectious, and being those for which compensation was to be given, while actinomycosis has been added to the list during the session of 1896. The expression 'infectious or contagious diseases' includes, in addition to other diseases generally so distinguished, *glanders, farcy, mange, pleuro-pneumonia, foot and mouth disease, anthrax, rinderpest, tuberculosis, splenic fever, scab, hog cholera, hydrophobia, variola ovina, and actinomycosis.*

From the summarized history which has just been presented, it becomes manifest that in Canada, as indeed, in all countries, the study of veterinary medicine has relatively a very brief history, and must in practice, be considered as having taken its position as a science, only within the last thirty years. Its development has had much to aid it, especially from the standpoint of commerce; for with the development of rapid steam transit, as has been seen, came the possibility of the development of the live cattle trade between

Ontario  
Glanders Act  
passed in 1884

Canada  
Animals Con-  
tagious  
Diseases Act  
passed in 1885  
included many  
diseases.

America and Europe. Owing to the enormous number of cattle exported from North America, and the developing trade even from South America, and the numerous ramifications of the interstate and inter-provincial railway transportation, the last fifteen years have seen the evolution of a totally new state of affairs, which has demanded the attention not only of cattle-owners, shippers, and transportation companies, but also both of Federal and State Governments on both sides of the Atlantic. Along with the importations from all parts of the American continent into Britain, the dangers of the spread of communicable disease from one state to another, with interstate commerce, have similarly greatly increased, as well as the possibility of diseased animals carrying the contagion to the ports of entry in Europe. Not only this, but the facts which soon came to be learned that a most profitable trade could be developed in the exportation to Britain of well grown, half fattened beasts, called "stockers," to be prepared for the market on the rich pastures of some British county, added an additional element of danger of the introduction of disease into Great Britain. This was soon realized, when after the severe outbreak of Texas Cattle disease on the south-western plains, and the presence of pleuro-pneumonia in some of the Eastern and Central States, the Order-in-Council, of the Department of Agriculture of Great Britain, of 1882-3 was passed requiring the slaughter of all United States cattle at the port of entry in Great Britain and which has been continued ever since. This became of great incidental advantage to the Canadian cattle shippers, who were not slow to make the most of it, and while being at all times loud in condemning the introduction into Canada of American cattle, have, on the other hand, been equally strong in the praise of our Canadian herds seemingly so free of disease.

Commercial advantages to Canada from admission of stockers into England between 1882-1895.

As a consequence of this condition of affairs, two very remarkable phenomena resulted ; *first*, there came a stasis in the healthy activity which had begun to characterize the work of cattle inspection in Canada at the time when the Contagious Diseases Animals' Act was first passed by the Federal Government of Britain in 1879, and a tendency to rest, if not on our laurels, at any rate on the fortunate

accident of the healthfulness of Canadian herds; and *second*, there has resulted a full realization by the Government of the United States of the perils which their export—and even internal—cattle trade might soon be subjected to if comprehensive, scientific and thorough measures were not promptly adopted for meeting the situation.

We have already seen how the Bureau of Animal Industries of the Federal Government of the United States, a mere tentative department ten years or more ago (being established first by Congress in 1884), has extended its operations until we see it in 1895 establishing under new legislation, even an interstate cattle inspection, superadded to that of the previous legislation of 1887 for the inspection of cattle for export; which, added to the laws establishing cattle commissions in some fifteen states, has caused a development of the work of investigation and stamping out of cattle diseases, the importance of which upon the relative standing of Canadian cattle in the European market does not seem to have yet been realized by the Canadian legislator or stock-breeder. (See U. S. laws referred to in Report on Inspection of Meat and Milk, Part II., Provincial Board of Health Report, 1891).

To illustrate the operation of these laws, I cannot do better than to present a summary of what anyone may see in daily operation at the Buffalo cattle market. Buffalo by its situation is most favorably placed for the building up of a large cattle market, and boasts to-day of being the largest sheep market in the world, over 6,000,000 sheep being handled at their local market in 1895. To-day there are forty-four acres covered with cattle yards and pens; and a new company has recently begun new yards with an area of sixty acres. In addition to the local city market of a population of 350,000, there is one long established and very large packing establishment, and several smaller ones, the latter engaged especially in the local and interstate trade. As will be seen by the Act already referred to, the railway companies can only transport to outside any state such animals as have obtained local bills of health. Brought to the Buffalo market they are at once drafted to different pens, those for local slaughter being inspected by city inspectors, and those for export or interstate trade being ex-

Methods of inspection systematically carried out at registered abattoirs by United States inspectors at Buffalo.

amed by Federal inspectors, who likewise examine all intended for slaughter in the one packing establishment having Federal inspection through asking for registration and by consenting to submit to the regulations of the Department. It is confessed by the city officials that the local staff is insufficient for an efficient inspection, but they cover the ground as far as possible. As will be seen in the following figures, it seems absurd that two or three city inspectors can have inspected 5,049,473 cattle, hogs, sheep and calves in 1895 ; but such is stated in the mayor's annual address.

This is all the local inspection that is done except to look up local nuisances at the numerous butcher shops of the city and suburbs, where a large part of the local supply is slaughtered. The city health authorities are anxiously asking for one or more abbatoirs for extending the local inspections.

Returning, however, to the Federal inspection service, we find a staff inspecting every animal, either in the pens or on being weighed. Those showing disease or injury are placed in quarantine after being tagged and numbered and a short description of the animal taken. Those for slaughter in the registered packing-house are driven off as required to the yards of the packing-house, and there again carefully inspected as they are sorted into grades of different quality. Further inspection not having revealed any disease, the cattle pass on to the slaughtering floor. While being skinned and dressed each carcase is carefully inspected by the veterinarian, the lungs, glands and intestines being examined especially for the detection of tuberculosis. When found healthy the meat is tagged "Inspected," with a numbered tag of the Bureau of Animal Industries, and the meat passes into the cooling chamber either for local use, interstate trade or export.

All interstate packages have to be made up of meat bearing on each parcel the blue stamp of inspection by the Bureau Inspectors. If a carcase while dressed is found diseased in its lungs, etc., to any serious degree, it is ticketed "Condemned," its number taken, and it is followed by the inspector to the "Rendering tank," where it remains until he sees it destroyed for food. Pigs and sheep are in-

All packages  
of inspected  
meat products  
for export  
bear the  
United States  
stamp.

spected similarly to cattle, both at the pens, stock-yards and in the yards of the packing-house. After killing, the internal organs of hogs are placed on a table in front of the inspector, who examines for swine-plague and hog-cholera, measles, etc. If diseased the condemned tag is attached and the carcase afterwards goes to the rendering tanks. In addition, however, to this inspection, several small pieces are nipped off by scissors from different muscles, numbered the same as number of tag on carcase, and taken to a room where are young women specially trained to examine with the microscope for trichina. The specimens from each animal are examined by two separate examiners, one in forenoon and one in the afternoon, and if the trichina is found the whole carcase is condemned without reserve. All packages for export, as before, receive the brand of the Bureau of Animal Industries.

Returning to the inspection of cattle intended for the wholesale trade or export, they are inspected individually, and if found healthy to outward appearance they have a metal tag punched into the ear bearing a number of a continuous series, and a detailed statement of the numbers in any given lot is daily made and forwarded to the Central Bureau at Washington ; also a note of any animals condemned, stating cause. These animals tagged as inspected are admitted to interstate trade, but if for export are again inspected before going on board ship.

So complete is the system of registration that as an inspector in the Deptford market, London, stated to a Canadian friend, "The Americans are quite surpassing you Canadians, for we can trace any animal found diseased by that tag back to the very farm it may have come from in the Western States. We are getting afraid of your Canadian cattle." The quarantined animals at the yards are further examined, and if proved diseased on killing are all *tanked*, as the expression is. This work is being extended to the investigation and stamping out of tuberculosis and actinomycosis by inspection of herds. The latter must necessarily be largely carried out by State authorities, and as seen in the report contained in Part II. of the Provincial Board of Health Report, 1895, the work is in many states being vigorously prosecuted, compensation being given in every case.

Increasing  
reputation of  
American  
cattle and  
products in  
England due  
to strict  
inspection.

We very naturally enquire what stage similar control and inspection has reached in Canada? We have already quoted references to show that Canada was early alive to the interests of this most important industry. We notice, too, that since the threatened scheduling of Canadian cattle in England, owing to reported cases of pleuro-pneumonia in exported stockers in 1892, 1893, much concern has been shown to prove that our Canadian cattle have been free from this, and indeed all other diseases. The scheduling order was finally made in 1896, so that the favored position of Canadian live cattle exports extending during ten years over United States exports has disappeared. Assuming what seems to be true that no cases of contagious pleuro-pneumonia have in England been proved against Canadian cattle, are there, therefore no good and sufficient reasons existing in England for the issue of such an order? To answer this we have to examine the reports issued annually by the Dominion Department of Agriculture, and judge of our situation when placed alongside of the measures adopted in the United States to raise the standard of their cattle, even though scheduling continues.

The chief veterinary inspector, in his last report, states that out of a total of 99,606 cattle landed from Canada at British ports in the year ending November 1st, 1895, not a single case of pleuro-pneumonia could be discovered.

Statements in  
annual report  
of Canada  
Department  
of Agriculture  
in 1895.

"Not only is this the case, but your inspectors have been very seldom called upon to investigate any diseases in the country—that in fact with the exception of tuberculosis and actinomycosis, and a few cases of scab in sheep, no diseases of a contagious nature exist in the herds or flocks of Canada. The healthiness of the stock generally in this country is almost phenomenal." Again—"The number of herds infected by this disease (tuberculosis) during the past year has greatly decreased in Quebec and the Maritime Provinces, due, no doubt, to the owners of cattle being now generally well informed of the incurable and dangerous nature of the disease, and the ways in which the infection is spread, more care in adopting preventive measures being exercised by them."

The percentages of tuberculosis in lungs examined at Quebec, Halifax and St. John, were respectively, 2, 1½ and 2 per cent. Dr. A. Smith, of Toronto, chief inspector for Ontario, in speaking of the 927 pairs of lungs examined at Toronto, Hamilton, London and Galt, makes no mention of tuberculosis.

It must be presumed that the chief inspectors at the port of embarkation have carefully examined all animals exported. Of the 99,606 cattle shipped, fifty-seven lame, fifteen old and poor, one with mange and sixty-seven with lump jaw, are stated to have been detained, and not one was found to be tuberculous. There would seem to be included in the staff for the whole Dominion fifteen veterinary inspectors and seven who report as customs officers at small ports of entry. These would not appear, from the few cattle reported, to be continually engaged in inspecting cattle at ports of entry, and several of the number are guardians of cattle yards principally where American cattle pass through the Lake Erie peninsula in transit. From this staff performing such work as comes to hand, we have to look to obtain the exact information which goes into the annual reports. In direct contradistinction to this, it is learned that the staff of the chief inspector at Buffalo for carrying out the regular work of daily inspection of the Bureau of Animal Industries is twenty three, including veterinarians and others. *With an animal population of over 5,000,000 cattle, over 3,000,000 sheep and over 1,000,000 hogs in the Dominion, it is apparent that broad statements made on the strength of what such a staff of observers only occasionally and incidentally—not entirely—engaged may discover of tuberculosis for instance, must, if published, only serve to cast doubt upon the accuracy of other statements with regard to pleuro-pneumonia or any other suspected disease.*

The work done by municipal authorities in Ontario, supported by ample legislative enactments is certainly most limited and unsatisfactory in the work of protecting against such diseases, and, as has been shown in the United States, no state legislative action has been effective in dealing with the inspection of cattle. Encouraged however by the comprehensive, systematic and scientific work of the Federal Bureau of Animal Industries, the State legislatures have within the past three years supplemented very largely Federal action. As in a peculiar sense the movement of cattle becomes interstate and interprovincial for purposes of commerce, it is quite apparent that nothing can be effective in Canada unless begun from this standpoint by the

Effects of  
statements  
based upon  
imperfect  
inspection.

Municipal  
cattle inspection  
in Canada  
limited, owing  
to no provision  
for compensation.

Federal authorities. When it is remembered that from 1889 to 1894 the increase of the export cattle-trade of fat cattle, of the United States, even with the embargo of the English schedule on all stockers was 22.5 per cent., while in Canada without any embargo and with the freedom to enter stockers, the increase of our export cattle trade was notably less, it is quite apparent that those interested in this important part of our national prosperity will do well to be guided by facts and not by self complacency.

*Inspection of Animals in the United States.*

The following notes summarized from the Annual Report of the Secretary of Agriculture, the Hon. J. P. Morton, for the United States for 1895-96, will be found of great interest and importance as regards the commercial and health interests of the Province. The report is replete with statistics showing the number of officers engaged in the work of cattle inspection, the number of animals inspected, the number condemned and the amount of the exports.

Summary of statistics taken from reports of United States Department of Agriculture for 1895-96.

The total number of cattle, sheep, calves and hogs inspected was 35,917,479. The cost of the work was \$341,456.85, or 0.91 dollars for each ante-mortem inspection, which includes post-mortem inspection at the abattoirs, tagging, stamping and issuance of certificates of inspection.

The number of persons engaged in the work has been 758, and as stated in the report, "These facts demonstrate to the consumers of the meat products of the United States at home and abroad that there is a scientific and careful inspection made of all meats intended for interstate and foreign commerce. The sanitary value of the system is beyond computation. It protects health and life."

"Inspection will become so general and so perfect that not a single pound of unwholesome meat will find its way from the United States to foreign markets, nor will any be sold at home which does not carry certification of inspection."

As has been pointed out in the public press, the Government of the United States established this inspection principally at registered abattoirs engaged in the export trade; but as the report states: "State and municipal authorities are becoming more alert in co-

operating with the United States authorities in the attempts to prevent the sale in the great cattle and swine slaughtering cities of the animals, carcasses and meats which the inspectors of the Bureau of Animal Industry have rejected and thrown out of interstate and foreign trade."

There were in 1896, 102 of such registered abattoirs distributed over twenty-six cities. Of the several classes of animals inspected, there were during the year ending June 30th, 1896 :

|              | Total<br>inspected. | Total<br>Condemned. |
|--------------|---------------------|---------------------|
| Cattle ..... | 7,529,523           | 22,356              |
| Sheep .....  | 6,318,284           | 13,225              |
| Calves ..... | 314,846             | 2,837               |
| Hogs.....    | 21,754,826          | 50,981              |
| Total .....  | 35,917,479          | 89,399              |

Nearly 1,000,000 specimens of the tissues of hogs were examined microscopically for trichinae, and 11,100 samples contained trichinae. The cost per specimen was 6.18 cents. The extremely small cost per carcass and per sample of tissue gives a practical point to the statement of the report that "In the interests of public health there should be government inspection of all animals intended for human food, and of all meat products prepared for consumption in the United States and abroad. The assurance of protection given by a Government certificate enhances the value of the product by creating a demand for it which uninspected meat does not enjoy."

It is apparent that this inspection insures (a) greater care on the farm of the health of the cattle, and, by so much, better housing and feeding ; (b) more careful selection of animals shipped since they are subject to inspection ; (c) and therefore a higher quality of all the products which are exported.

During nine months of 1896 Great Britain imported 436,223 cattle, of which the United States sent 308,159, and Canada 71,670, and other countries 56,394, while the bacon from the United States during the same nine months amounted to 207,000,000 pounds. It thus appears that for a cost of less than one dollar per head on the cattle exported in a single year from the United States all the live animals and meats of every kind have been inspected and stamped.

Imports of  
cattle into  
England in  
1896.

The direct results of this inspection would seem to be found in the statement of the report, taken from consular reports: "That the quality of animals from the United States is far superior to that of those received from Canada. At all the points named Canadian cattle have been found short in weight and poor in quality." The report contains much other information of the greatest interest to Canadians, but enough facts have been given to impress us with the urgent need of not only preserving the trade we already have but of adopting further systematic and scientific methods for maintaining our own place in the fierce competition going on for the greatest of the world's markets.

P. H. BRYOE, M.A., M.D.,  
Secretary Provincial Board of Health.











HD  
9410  
.9  
05

Ontario. Dept. of Health  
Pamphlet no. 1:1896

PLEASE DO NOT REMOVE  
CARDS OR SLIPS FROM THIS POCKET

---

UNIVERSITY OF TORONTO LIBRARY

---

